ABSTRACT

Antibacterial activity of extract of endophytic fungi *Aspergillus salwaensis* strain DTO297C1 isolated from *Chromolaena odorata*

Desy Ermawati

Aspergillus salwaensis strain DTO297C1 is one of endophytic fungi isolated from *Chromolaena odorata*. In this research, secondary metabolites from *A. salwaensis* were extracted with ethyl acetate. Extract was examined by antibacterial activity assay against *Staphylococcus aureus* ATCC 6538, *Escherichia coli* ATCC 25922, and *Bacillus subtilis* ATCC 6633. The antibacterial activities were tested at four concentrations of 75 µg; 100 µg; 150 µg; and 200 µg by disc diffusion method. Phytochemical screening was conducted by Thin Layer Cromathography (TLC) method.

Based on the results of antibacterial assay, ethyl acetate extract of *A. salwaensis* had antibacterial activity at concentration 75 µg/disc against *S. aureus* ATCC 6538 with diameter of inhibition 9,17 mm, *E. coli* ATCC 25922 with diameter of inhibition 8,32 mm, and *B. subtilis* ATCC 6633 with diameter of inhibition 9,26 mm. Phytochemical screening showed that *A. salwaensis* contain compounds of flavonoid, polyphenol and terpenoid/steroid.

Key words: Antibacterial, extracts, endophytic fungi, *Aspergillus salwaensis, Chromolaena odorata*.